

**REMARKS**

**I. INTRODUCTION**

Claim 17 has been amended to address remove certain informalities, and not for any reasons relating to patentability. Claims 1-58 are under consideration in the above-identified application.. Applicants respectfully submit that no new matter has been added.

**II. REJECTIONS UNDER 35 U.S.C. § 112, ¶¶1 & 2 SHOULD BE WITHDRAWN**

Claim 17 stands rejected under 35 U.S.C. § 112, ¶¶1 & 2 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter, and as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Specifically, the Examiner believes that the specification does not reinforce the meaning of “on-chip risk.” Applicants maintain that the claim is patentable in its original form, but in the interest of expediting the application, not for any reasons relating to patentability, the claim has been amended to refer to “on-chip risk management.” Applicants respectfully assert that the rejections under 35 U.S.C. § 112, ¶¶1 & 2 should be withdrawn.

**III. REJECTIONS UNDER 35 U.S.C. § 102(b) SHOULD BE WITHDRAWN**

Claims 1-3, 4-44 and 46-58 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,461,217 to Claus *et al.* (the "Claus Patent").<sup>1</sup> It is respectfully asserted that the subject matter explicitly recited in claims 1-3, 4-44 and 46-58 is not disclosed in the Claus Patent, at least for the reasons provided in greater detail herein below.

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<sup>1</sup> The Examiner has rejected claim 4 under 35 U.S.C. § 102 (b), but only addresses this claim in a different section as being obvious under 35 U.S.C. § 103 (a). Thus, Applicants believe that the Examiner intended to reject this claim only under 35 U.S.C. § 103 (a).

In order for a claim to be rejected as anticipated under 35 U.S.C. § 102(b), each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference. Manual of Patent Examining Procedures, §2131; *also see Lindeman Maschinenfabrik v. Am Hoist and Derrick*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

Independent claim 1 relates to a method for communicating between portable devices, each device storing a sequence number and a key. The method comprises, *inter alia*, comparing the first sequence number to the second sequence number; if the second sequence number is newer than the first sequence number, performing a verification using the first and second keys; and setting the first sequence number to have a value of the second sequence number if the verification succeeds.

The Claus Patent describes a system that uses smart cards each of which contains at least one security key. The Claus Patent also describes a transaction where a bank smart card checks to make sure a user smart card has a logical balance, date and interest rate, determines if the user smart card account number has been stored in its BAD\_CARD file, and supplies a new security key to the user smart card if necessary. (*See Claus Patent*, column 12, lines 42-55).

Applicants respectfully assert that the Claus Patent does not disclose any use of sequence numbers, much less comparing first and second sequence numbers on each portable device, performing a verification using security keys if the second sequence number is newer than the first sequence number, and setting the second sequence number to have a value of the first sequence number if the verification succeeds. In fact, the only information exchanged between the bank card and user card of the Claus Patent is the date, account number, cash amount, interest rate, and security key. (*See Claus Patent*, column 12, lines 39-55). Even if, *arguendo*, the date transferred from the bank card to the user card of the Claus Patent is equated to Applicants' claimed sequence number, the Claus Patent does not disclose any comparison of the dates, much less that the

second sequence number is set to the value of the first sequence number. At least for these reasons, the rejection of claim 1 under 35 U.S.C. §102 (b) should be withdrawn.

Independent claim 25 relates to a portable device that recites similar subject matter as set forth in independent claim 1. Therefore, for at least the same reasons discussed above with respect to independent claim 1, the rejection of claim 25 under 35 U.S.C. §102 (b) should also be withdrawn.

Independent claim 32 relates to a method to determine an approximate current time through the use of portable devices, each portable device storing a sequence number. The method comprises, *inter alia*, comparing first and second sequence numbers stored on each portable device, the sequence numbers being indicative of times provided on each portable device; and setting the first sequence number to have the value of the second sequence number if the second sequence number is newer than the first.

Even if, *arguendo*, the date transferred from the bank card to the user card of the Claus Patent is equated to the Applicants' claimed sequence number, the Claus Patent does not disclose the comparison step or the setting step recited in independent claim 32, similarly as discussed above for independent claim 1. At least for these reasons, the rejection of claim 32 under 35 U.S.C. §102 (b) should be withdrawn.

Independent claim 37 relates to a portable device that recites similar subject matter as set forth in independent claim 32. Accordingly, for at least the same reasons explained above with respect to independent claim 32, the rejection of claim 37 under 35 U.S.C. §102 (b) should be withdrawn.

Independent claim 41 relates to a method for determining an approximate current time through the use of portable devices, each portable device storing a sequence number and a key.

The method comprises, *inter alia*, comparing the first and second sequence numbers on each portable device, the sequence numbers being indicative of times provided on the devices; if the second time is newer than the first time, performing a verification using the keys; and setting the first sequence number to have a value of the second sequence number if the verification succeeds.

Applicants respectfully assert that the Claus Patent nowhere discloses any comparison of the first and second sequence numbers, or setting of the first sequence number to have the value of the second sequence number, if the verification succeed, such verification being performed if the second time is newer than the first time.

Independent claim 54 relates to a portable device that recite similar subject matter as set forth in independent claim 41. At least for the same reasons explained above with respect to independent claim 41, the rejection of claim 54 under 35 U.S.C. §102 (b) should be withdrawn. Because other claims depend from these independent claims, such claims are also believed to be patentable over the Claus Patent for at least the same reasons as provided above for Claims 1, 25, 32, 37, 41 and 54.

With respect to claims 2, 31 and 58, in the Office Action, the Examiner refers to column 11, lines 13-16 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes the use of security keys to verify transactions, but does not disclose the use of global signing keys, or the comparison of at least one portion of the global signing keys in order to verify transactions as explicitly recited in claims 2, 31 and 58. Furthermore, because claims 2, 31 and 58 depend from independent claims 1, 25 and 54, respectively, it is respectfully asserted that these claims are also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claims 1, 25 and 54. Therefore, the rejections of claims 2, 31, and 58 under 35 U.S.C. §102 (b) should be withdrawn.

In addition, with reference to claim 3, the Examiner pointed to column 12, line 44 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes a bank smart card invalidating a user card if it finds the card's account number in its BAD\_CARD file, but does not disclose that verifications succeed when at least one portion of a global signing key corresponds to at least one second portion of another global signing key as explicitly recited in claim 3. Furthermore, because claim 3 depends from claim 2, which depends from independent claim 1, it is respectfully asserted that claim 3 is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejections of claim 3 under 35 U.S.C. §102 (b) should be withdrawn.

With respect to claims 9 and 50, the Examiner pointed to column 12, line 50 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes a bank smart card sending an encrypted data packet to a user smart card, but it does not disclose the use of authenticated system messages or sequence numbers, or that at least one of the cards sets the second sequence number as explicitly recited in claims 9 and 50. Furthermore, because claims 9 and 50 depend from independent claims 1 and 41, respectively, it is respectfully asserted that these claims are also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claims 1 and 41. Therefore, the rejections of claims 9 and 50 under 35 U.S.C. §102 (b) should be withdrawn.

With respect to claims 10 and 28, the Examiner pointed to column 8, lines 9-27 and column 12, lines 55-60 of the Claus Patent as allegedly disclosing the subject matter recited therein. These portions of the Claus Patent describe the use of a KEY\_NUMBER file on each smart card that stores application keys and the most recent date a key was updated, and a requirement for the cards

to have at least two identical application keys in order for a transaction to occur. However, these sections relied on by the Examiner do not disclose any use of sequence numbers or the comparison of the sequence numbers on each card as explicitly recited in claims 10 and 28. In addition, such portions of the Claus Patent also do not disclose the transmission of an authenticated system message from the card with the newer sequence number to the card with the older sequence number as additionally recited in claim 10. Furthermore, because claims 10 and 28 depend from independent claims 1 and 25, respectively, it is respectfully asserted that these claims are also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claims 1 and 25. Therefore, the rejections of claims 10 and 28 under 35 U.S.C. §102 (b) should be withdrawn.

For claim 11, the Examiner pointed to column 8, lines 26-27 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes how it would not be possible to implement a successful money transfer between two smart cards that had only one matching application key. This section of the Claus Patent, however, does not disclose any use of sequence numbers or the transmission of an authenticated system message without setting the first sequence number to have the value of the second sequence number, as explicitly recited in claim 11. Furthermore, because claim 11 depends from claim 10, which depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claim 11 under 35 U.S.C. §102 (b) should be withdrawn.

With reference to claims 13 and 51, the Examiner pointed to column 12, lines 55-58 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the

Claus Patent describes crediting of a user smart card with interest earned by a bank smart card, updating the date and interest rate if necessary, and updating the application keys stored on the card. However, this section does not disclose any use of sequence numbers or global signing keys as explicitly recited in claims 13 and 51. Furthermore, because claims 13 and 51 depend from independent claims 1 and 41, respectively, it is respectfully asserted that these claims are also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claims 1 and 41. Therefore, the rejections of claims 13 and 51 under 35 U.S.C. §102 (b) should be withdrawn.

With respect to claims 14 and 52, the Examiner pointed to column 4, line 67 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes that the microprocessors within each smart card exchange initial handshaking information with each other to ascertain that both smart cards are communicating across the smart card reader network. This section of the Claus Patent does not disclose any use of value transfer protocol keys or global signing keys, much less the association of each value transfer protocol key with a global signing key, as explicitly recited in claims 13 and 51. Furthermore, because claims 14 and 52 depend from independent claims 1 and 41, respectively, it is respectfully asserted that these claims are also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claims 1 and 41. Therefore, the rejections of claims 14 and 52 under 35 U.S.C. §102 (b) should be withdrawn.

Additionally, for claim 16, the Examiner pointed to column 8, lines 50-56 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes how only four bytes of the account numbers of each card need to be stored at the

bank branch level, and the importance of techniques for managing bad smart cards, as they affect the profitability of a smart card system. This section of the Claus Patent does not disclose any use of authenticated system messages, receiving authenticated system messages which contain commands, or executing such commands, as explicitly recited in claim 16. Furthermore, because claim 16 depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claims 16 under 35 U.S.C. §102 (b) should be withdrawn.

For claim 17, the Examiner pointed to column 7, lines 54 to column 8, line 7 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes storing four application keys on each smart card, two of which must be valid for any transaction to occur, one application key being updated during each financial transaction with a bank center smart card, and the periodic updating of the application keys stored on the bank center smart card. This section of the Claus Patent does not disclose providing applications from one card to another, or updating a security scheme of the on-chip risk management of one of the cards, as explicitly recited in claim 17. Furthermore, because claim 17 depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claim 17 under 35 U.S.C. §102 (b) should be withdrawn.

With respect to claim 19, the Examiner pointed to column 8, lines 7-8 and column 7, lines 59-65 of the Claus Patent as allegedly disclosing the subject matter recited therein. These portions of the Claus Patent describe how two application keys stored on a user smart card must be valid for any transaction to occur, how one application key is updated during each financial



transaction with a bank center smart card, and the dynamic updating of the application keys stored on the bank center smart card. This section of the Claus Patent does not disclose selective targeting of at least one of the portable devices and applying recustomization procedures to the at least one portable device, as explicitly recited in claim 19. Furthermore, because claim 19 depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claim 19 under 35 U.S.C. §102 (b) should be withdrawn.

For claim 20, the Examiner pointed to column 8, lines 7-8 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes the dynamic updating of the application keys stored on the bank center smart card at irregular time intervals. This section of the Claus Patent does not disclose providing selecting a response from at least one of the portable devices when a predetermined criteria is met, as explicitly recited in claim 20. Furthermore, because claim 20 depends from claim 19, which depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claim 20 under 35 U.S.C. §102 (b) should be withdrawn.

With respect to claim 21, the Examiner pointed to column 11, lines 13-16 and 24-25 of the Claus Patent as allegedly disclosing the subject matter recited therein. These portions of the Claus Patent describe a smart card reader executing a program stored on the card using security keys from the other smart card as variables, and the other smart card responding with a data packet encrypted using the same security key. These sections of the Claus Patent do not describe any use of global signing keys, or the use of cryptograms related to global signing keys, as explicitly recited in

claim 21. Furthermore, because claim 21 depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claim 21 under 35 U.S.C. §102 (b) should be withdrawn.

For claim 24, the Examiner pointed to column 14, lines 53-60 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes the files on the smart card that store the current APPKEY number and the last date the keys were updated by the bank, the number of bad key attempts, which gets reset after a valid bank transaction, and how the card is locked when this number reaches a set limit. However, such section of the Claus Patent does not disclose modifying the stored parameters of one of the cards, after the setting step, to suspend, permit, or modify subsequent operations between the two cards or any other cards as explicitly recited in claim 24. Furthermore, because claim 24 depends from independent claim 1, it is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 1. Therefore, the rejection of claim 24 under 35 U.S.C. §102 (b) should be withdrawn.

With reference to claim 33, the Examiner pointed to column 7, lines 63-65 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent discloses that the maximum amount of time that a cardholder can go without a bank transaction is three months. However, such section of the Claus Patent does not describe any use of sequence numbers, comparing the times stored on the devices, or setting the second sequence number to have a value of the first sequence number if the second time is older than the first time as explicitly recited in claim 33. Furthermore, because claim 33 depends from independent claim 32, it

is respectfully asserted that this claim is also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claim 32. Therefore, the rejection of claim 33 under 35 U.S.C. §102 (b) should be withdrawn.

Further, for claims 34 and 35, the Examiner pointed to column 12, lines 49-50 of the Claus Patent as allegedly disclosing the subject matter recited therein. This portion of the Claus Patent describes the bank smart card sending an encrypted data packet to a user smart card during a transaction. This section of the Claus Patent, however, does not disclose any use of sequence numbers, much less the executing an action which is triggered by either of the first or second sequence numbers, as explicitly recited in claims 34 and 38. Furthermore, because claim 34 depends from claim 33, which depends from independent claim 32, and claim 38 depends from independent claim 37, it is respectfully asserted that these claims are also not anticipated by the Claus Patent for at least the same reasons as discussed above with reference to independent claims 32 and 37. Therefore, the rejections of claims 34 and 38 under 35 U.S.C. §102 (b) should be withdrawn.

#### **IV. REJECTION UNDER 35 U.S.C. § 103(a) SHOULD BE WITHDRAWN**

Claims 4 and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Claus Patent in view of U.S. Patent No. 5,649,118 to Carlisle *et al.* (the “Carlisle Patent”). Because claim 4 depends from claim 2, which depends from independent claim 1, and because claim 45 depends from claim 43, which depends from independent claim 41, it is respectfully asserted that the Claus Patent does not teach or suggest the subject matter recited in claims 4 and 45, for at least the same reasons as provided above with reference to independent claim 1 and 41. “If an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefore is

nonobvious.” Manual of Patent Examining Procedures, §2143.03 (citations omitted). The Carlisle Patent does not cure the deficiencies of the Claus Patent, nor does the Examiner contends that it does. Therefore, the 35 U.S.C. §103 (a) rejection of claims 4 and 45 should also be withdrawn.

V. **CONCLUSION**

In light of the foregoing, Applicants respectfully submit that pending claims 1-58 are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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